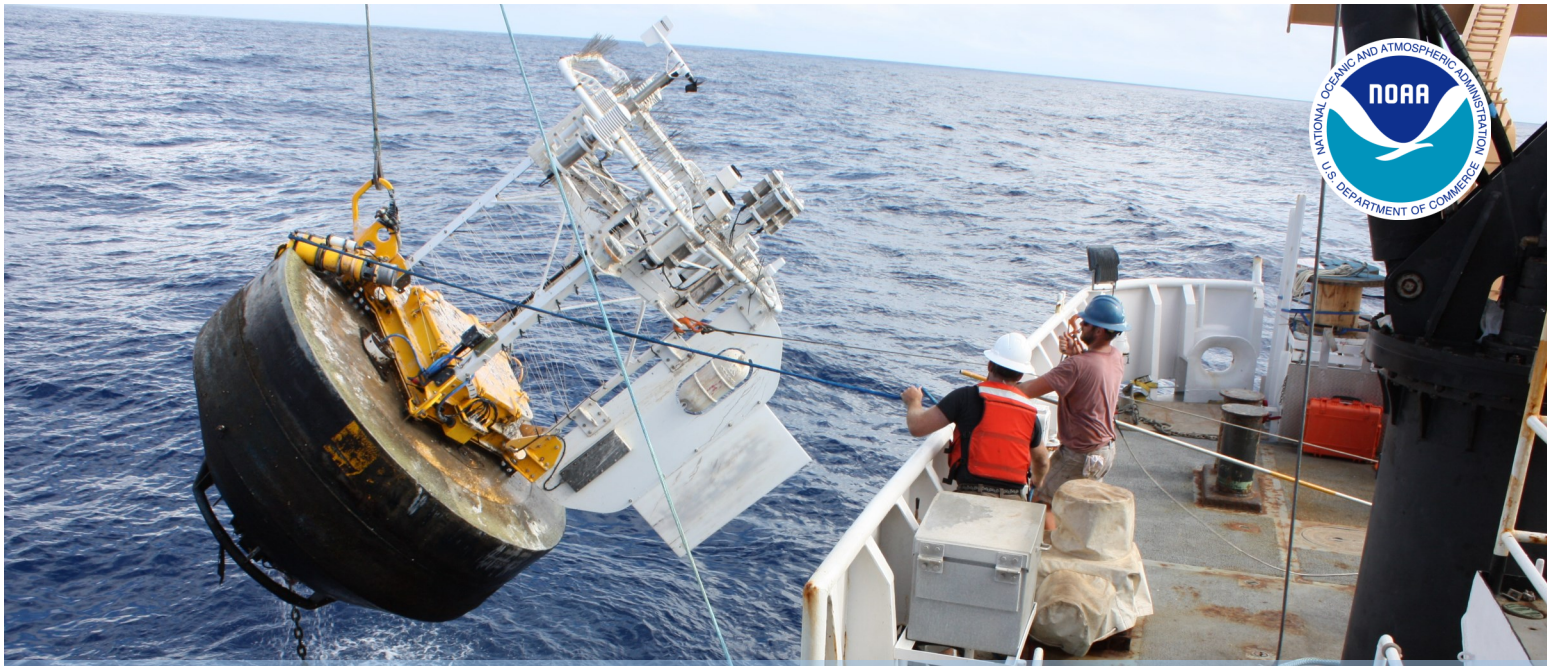
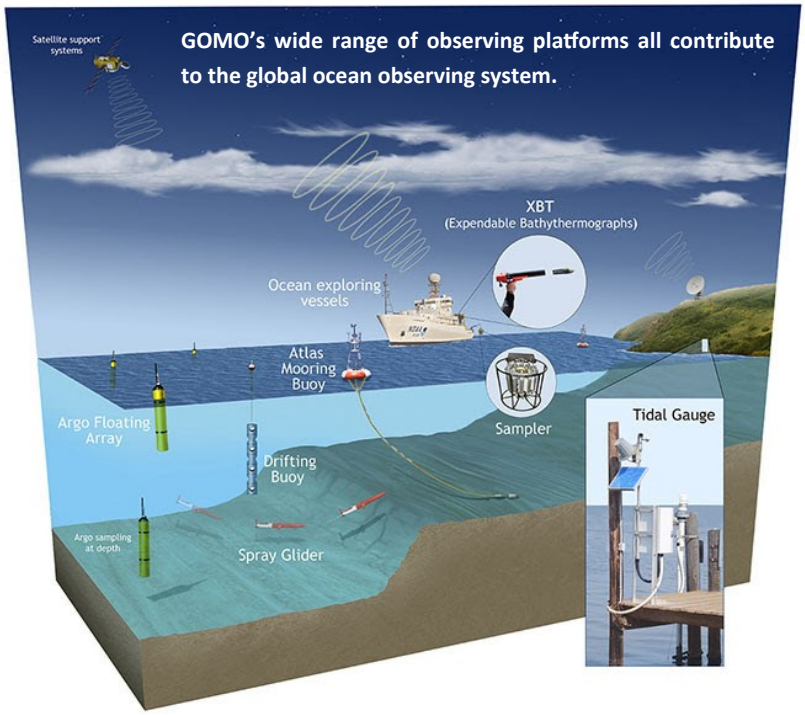


Global Ocean Monitoring & Observing Program

The ocean covers 71% of the Earth's surface and contains 97% of the Earth's water. Global ocean conditions profoundly affect weather, the environment, marine ecosystems, and coastal regions where a large fraction of the global population lives. Observing, monitoring, and understanding the role of the ocean in weather, seasonal variations, and interannual variations (such as El Niño) is a core mission of NOAA. **The Global Ocean Monitoring and Observing (GOMO) Program** supports research that studies global ocean conditions and variables such as ocean temperature, currents, waves, sea level, salinity, and carbon and oxygen. These observations serve as a foundation for the information our nation needs to reduce risks for its people, businesses, and assets.

Through GOMO, NOAA supports more than ONE MILLION ocean observations each day!

- We partner with **over 50 countries** in developing and sustaining the global ocean observing system.
- We **collaborate nationally** with NOAA Laboratories, Universities, Cooperative Institutes, and Federal Agencies to achieve NOAA's mission.



Our Unique Contribution: NOAA's Global Ocean Monitoring and Observing Program is the U.S. Federal source and international leader for sustained, *in situ* global ocean observations and information in support of research, monitoring, and prediction.

Global Ocean Monitoring and Observing Program
NOAA Office of Oceanic and Atmospheric Research
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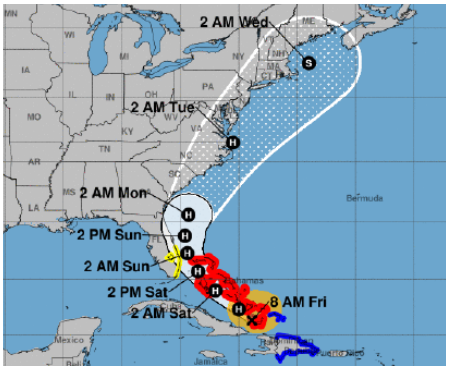
Visit our website:
globalocean.noaa.gov

Global Ocean Monitoring & Observing Program

GOMO supports research that impacts people, ecosystems, and the economy.

The oceans and the Arctic influence environmental changes worldwide. Here are a few examples of our priority research areas:

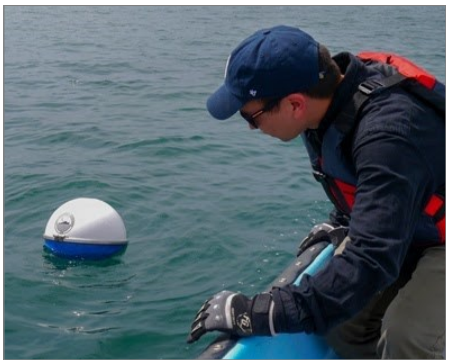


Improving Extreme Event Forecasting

GOMO supports observations and data collected from ocean gliders, Argo floats, drifting and moored buoys that help improve the accuracy of hurricane and extreme event forecasts. We work with partners from the Indo-Pacific to the Gulf of Mexico to improve forecast accuracy, mitigate harmful impacts and save lives.

Monitoring Arctic Change

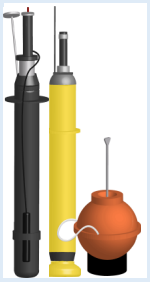
NOAA's Arctic Research Program supports long-term and year-round research that identifies changes in the ecosystems of the Arctic Ocean, the Bering, Chukchi and Beaufort seas, the impacts to local communities, and the global climate. Since 2006, we have led the annual Arctic Report Card, a timely and peer-reviewed resource documenting Arctic change and making national headlines.



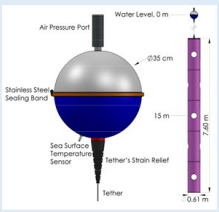
Building Capacity and Innovation

GOMO has led NOAA to sponsor tests of new ocean observing technologies such as Saildrone, deep Argo floats, and specialized gliders. Through international partnerships, GOMO supports capacity building workshops that train scientists in monitoring local ocean conditions, improving forecasts of tropical storms and saving lives.

New Focus Areas



Expanding the Argo Program: Since 1999, the Argo Program has revolutionized our ability to track changes in the ocean with a global array of autonomous profiling floats, providing nearly four times the ocean information as all other observing tools combined. NOAA's GOMO is a leader in the international Argo Program and currently supports new investments to develop floats that can measure the deep ocean and ocean chemistry, helping us better assess ocean health globally.



Measuring Waves with Drifting Buoys: Through the Global Drifter Program, GOMO supports an array of nearly 1,250 drifters in the global ocean. Newly developed wave drifters are now able to measure properties of waves in the open ocean, helping forecasters asses storm surge, maritime safety, and navigation. Wave drifters are also actively deployed in front of hurricanes, providing vital information to researchers about storm prediction.

Improving Observations in the Tropical Pacific

GOMO is a leader in the Tropical Pacific Observing System (TPOS) 2020 Project, an international effort to design an integrated observing system, including emerging technologies such as Saildrones, to improve El Niño-Southern Oscillation (ENSO) forecasting capabilities. ENSO is the Earth's dominant mode of climate variability on seasonal to interannual time scales, influencing temperature and precipitation across the globe. Improving our forecasting capabilities will profoundly impact agriculture, marine ecosystems management, human health and disaster preparedness.

Global Ocean Monitoring and Observing Program
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